



- ◆ Learn from the experts
- ◆ Get a UViGrapher certificate
- ◆ Learn to utilize your corona camera
- ◆ Enhance your corona inspection skills

« This has been one of the most interesting courses taken in my working career. In no small part this was because of the knowledge and experience the instructor shared as the course progressed. I highly recommend this course with this instructor. Thanks CITI! »

J W OPG, Canada

UViGraphers are skilled corona-camera operators that are involved with predictive maintenance. Predictive maintenance is based on data collection and analysis and is considered to be the most cost effective and reliability-oriented approach. UViGraphers contribute to achieve this strategy since they collect data. They can see signals that help foresee failures. Decisions are based on their reports. Awareness and proficiency are key factors to their success. Awareness is the outcome of using corona cameras, and proficiency is the outcome of experience and knowledge. CITI is where knowledge is obtained from experienced professional instructors.

CURRICULUM

- ◆ UV technology – theory
- ◆ UV technology – implementation & applications
- ◆ Corona & arcing PD – dynamics
- ◆ How, where and When to do UV inspections
- ◆ SEE to FORESEE - understand what you see
- ◆ Experience the full cycle: inspect, detect, report, act
- ◆ Integrating UV with other technologies
- ◆ Hands on DayCor® Camera

TEAM

PhD PE professional experienced instructors

WHO SHOULD ATTEND

- ◆ OHL inspectors
- ◆ PdM managers
- ◆ UAS/Aerial inspection operators
- ◆ Service contractors
- ◆ Maintenance engineers
- ◆ DayCor® or other corona camera users

BENEFITS

- ◆ CITI is the only establishment that deals thoroughly with corona and qualifies with a diploma corona inspection specialist called **UViGrapher**
- ◆ Knowledge and practice are the base for proficiency
- ◆ Skilled workforce is valuable
- ◆ Professionals contribute to success
- ◆ Make the most of your corona camera
- ◆ Become a certified UViGrapher

DURATION

- ◆ Full Program w/Diploma – 3 days
- ◆ Optional Inhouse Training Programs – 2 days

LOCATIONS

- ◆ Atlanta GA, USA
- ◆ Hosted classes worldwide, need coordination

REGISTRATION

- ◆ ONLINE – WWW.CITI-TRAINING.COM
- ◆ FAX REGISTRATION FORM: +1.888.950557 X 4
- ◆ EMAIL: INFO@CITI-TRAINING.COM

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SYLLABUS

- Introduction to the corona phenomenon & UV technology
- **Ionization Process - electro physical approach**
This module introduces engineers and technicians to the chemical reactions that take place in response to various local changing factors.
- **The Corona phenomenon theory - advanced**
This module lays out corona types and the way to distinguish between them. The dynamics of the corona is explained and the conditions that trigger it. .
- **Light**
This module scores and explains light properties as a wave and as particles and the related laws. It is the base for any inspection, including IR and UV. Understanding light laws helps perform professional inspections with dedicated cameras.
- **Solar-Blind**
This module focuses on daytime inspection principal and links between the UV technology and the ability to detect corona. Implementing solar blind depends on certain parameters that are explained. Understanding the solar blind concept can assist in selecting the correct inspection device.
- **UV & IR**
This module elaborates on the difference between thermal imaging and UV imaging each with its unique added value with examples and demonstrates the value of using complementary inspection technologies.
- **HV Insulators: NCI | Porcelain | Glass**
These modules explain the structure, composite and electrical characteristics of insulators. Each insulator type is discussed separately, answering questions such as which type to select, which configuration, how to extend lifetime, how to confront ambient conditions and more.

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- **Contamination & Ambient Condition**

This module discusses the effect of various environmental conditions on the health and performance of electrical grid installations. Understanding the link between corona, leakage current, flashover, etc., and certain ambient conditions are discussed and demonstrated.

- **CORONA LOSSES**

Are there any losses? How much. These are the focus of this module.

- **Electrical grid vulnerability to corona throughout:**

SUBSTATION - TRANSMISSION – DISTRIBUTION

A SET OF MODULES THAT OVERVIEW THE ELECTRIC GRID APPLICATIONS, FOCUSING ON PREDICTIVE MAINTENANCE FOR EACH APPLICATION. DESIGN, CONSTRUCTION, COMPOSITION, VOLTAGE ISSUES ARE DISCUSSED IN CORRELATION WITH CORONA.

- **Fire & Hazards**

This module links the corona and pole fire. The early signs and processes that lead to fire are explained with corrective activities.

- **Inspection Methodology, Modes & tips**

Finally, the theory is translated into practical guidelines, tips, and techniques. Based on Ofil's accumulated experience a set of tips and inspection guidelines are provided, explaining how to perform inspections and benefit from the DayCor® cameras and in their output. Additionally, it is explained what are the features that a corona camera must have, helping users select the right equipment.

- **Predictive Maintenance, Reporting and Recommendations**

The outcome of the 3 days of training is the ability to perform predictive maintenance which is based on the accumulated repository of the used sensors. With regard to daily activities, management, and assets managers are interested to get recommendations and reports. Attending this class will educate maintenance teams about decision making, offer recommendations and generate resourceful reports.

Diploma



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Graduates are entitled to a diploma stating their official qualification as UViGraphers, qualified inspectors.